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U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

APPEAL BRIEF TRANSMITTAL		Docket Number: 10191/1452	Conf. No. 7359
Application Number 09/581,459	Filing Date July 27, 2000	Examiner Jacob LIPMAN	Art Unit 2134
Invention Title SYSTEM FOR CONTROLLING ACCESS AUTHORIZATION		Inventor Stephan SCHMITZ et al.	

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Jong H. Lee

Further to the Notice of Appeal dated May 16, 2006 for the above-referenced application, enclosed are three copies of an Appeal Brief. Accompanying the Appeal Brief is the Appendix to the Appeal Brief. A two-month extension of time for filing the Appeal Brief is requested.

The Commissioner is hereby authorized to charge payment of the 37 C.F.R. § 41.20(b)(2) appeal brief filing fee of **\$500.00**, as well as **\$450.00** fee for the two-month extension of time, and any additional fees associated with this communication to the deposit account of **Kenyon & Kenyon LLP**, deposit account number **11-0600**.

 (R. No. 36,197)

Dated: 9/11, 2006

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[10191/1452]

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES**

Applicants : Stephan SCHMITZ et al.
Application No. : 09/581,459
Filed : July 27, 2000
For : SYSTEM FOR CONTROLLING ACCESS
AUTHORIZATION

Art Unit : 2134
Examiner : Jacob LIPMAN
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**APPELLANTS' APPEAL BRIEF
UNDER 37 C.F.R. § 41.37**

S I R :

Applicants filed a Notice of Appeal dated May 16, 2006, appealing from the Final Office Action dated January 26, 2006, in which claims 10, 11, and 14-18 of the above-identified application were finally rejected. This Brief is submitted by Applicants in support of their appeal.

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I. REAL PARTY IN INTEREST

The real party in interest in the present appeal is Robert Bosch GmbH of Stuttgart, Germany. Robert Bosch GmbH is the assignee of the entire right, title, and interest in the present application.

II. RELATED APPEALS AND INTERFERENCES

No appeal or interference which will directly affect, or be directly affected by, or have a bearing on, the Board's decision in the pending appeal is known to exist to the undersigned attorney or is believed by the undersigned attorney to be known to exist to Applicants.

III. STATUS OF CLAIMS

Claims 10, 11 and 14-18 are pending in this application and are being appealed. Claims 1-9 were canceled and claims 10-18 were presented in the Preliminary Amendment dated June 12, 2000. Claims 12 and 13 were canceled in the Amendment mailed on December 19, 2005. Among the pending claims, claim 10 is independent, and claims 11 and 14-18 ultimately depend on claim 10.

IV. STATUS OF AMENDMENTS

No amendment has been submitted subsequent to the final Office Action mailed on January 26, 2006.

V. SUMMARY OF CLAIMED SUBJECT MATTER

With respect to claim 10, the present invention provides a system for controlling an access authorization, including:

a base device (Fig. 1, element BG) including a computer (Fig. 1, element 16), wherein the base device initially transmits a prompt signal (Fig. 1, challenge Cx) within a framework of an initial prompt/reply cycle that is successfully carried out, and wherein the prompt signal is stored in the base device; (Specification, p. 1, l. 21-24; p. 4, l. 15-16);

at least one remote control (Fig. 1, element 20) storing the initially transmitted prompt signal from the initial prompt/reply cycle; (p. 1, l. 21-22; p. 4, l. 16-17);

in an access authorization process, subsequent to the previous, initial prompt/reply cycle that is successfully carried out, (p. 1, l. 26-27), the at least one remote control transmits to the base device a code word (Fig. 2, CWx in step 103) containing a reply (Fig. 2, Rx in step 103), the reply being formed at least partially as a function of the prompt signal stored in the at least one remote control; (p. 4, l. 21-24); and

the base device receives the code word containing the reply and compares the reply contained in the code word with a required reply (Fig. 2, Sx in step 105), wherein an access is authorized if the reply contained in the code word agrees with the required reply, and wherein the prompt signal stored in the base device is erased when a number of failed agreements (Fig. 2, M in step 111) of the reply and the required reply exceeds a specifiable limiting value (Fig. 2, G in step 111). (P. 4, l. 29 – p. 5, l. 6).

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

The following ground of rejection is presented for review on appeal in this case:

(A) Whether pending claims 10, 11 and 14-18 are unpatentable under 35 U.S.C. § 103(a) over the combination of U.S. Patent 5,745,576 ("Abraham") and U.S. Patent 4,797,672 ("Kousa").

VII. ARGUMENTS

A. Rejection of Claims 10, 11 & 14-18

Claims 10, 11 and 14-18 were rejected under 35 U.S.C. § 103(a) as being obvious in view of the combination of U.S. Patent 5,745,576 ("Abraham") and U.S. Patent 4,797,672 ("Kousa"). Applicants respectfully submit that this rejection should be withdrawn for the following reasons.

In rejecting a claim under 35 U.S.C. § 103(a), the Office bears the initial burden of presenting a prima facie case of obviousness. In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish prima facie obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine the reference teachings. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). The prior art must suggest combining the features in the manner contemplated by the claim. See Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 934 (Fed. Cir. 1990), cert. denied, 111 S. Ct. 296; In re Bond, 910 F.2d 831, 834 (Fed. Cir. 1990). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. In re Vaeck, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). Second, there must be a reasonable expectation of success. In re Merck & Co., Inc., 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim features. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). To the extent that the Examiner may be relying on the doctrine of inherent disclosure for the anticipation rejection, the Examiner must provide a "basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics necessarily flow from the teachings of the

applied art.” (See M.P.E.P. § 2112; emphasis in original; see also Ex parte Levy, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990)).

Claim 10 recites the following:

10. A system for controlling an access authorization, comprising:
a base device including a computer, wherein the base device initially transmits a prompt signal within a framework of an initial prompt/reply cycle that is successfully carried out, and wherein the prompt signal is stored in the base device; and
at least one remote control storing the initially transmitted prompt signal from the initial prompt/reply cycle;

wherein, in an access authorization process, subsequent to the previous, initial prompt/reply cycle that is successfully carried out, the at least one remote control transmits to the base device a code word containing a reply, the reply being formed at least partially as a function of the prompt signal stored in the at least one remote control, wherein the base device receives the code word containing the reply and compares the reply contained in the code word with a required reply, wherein an access is authorized if the reply contained in the code word agrees with the required reply, and wherein the prompt signal stored in the base device is erased when a number of failed agreements of the reply and the required reply exceeds a specifiable limiting value.

In support of the rejection, the Examiner contends that “key exchange to begin a session is well known in the art,” and therefore it would have been obvious to “use key exchange preceding Abraham to prevent eavesdropping.” In addition, the Examiner “takes official notice that it is well known in the art to check failed attempts to connect, and to abandon an access process after a predetermined number of failures,” and therefore, the Examiner concludes that it would have been obvious “to use this check in Abraham’s system to avoid eternal loops, and to increase security against hacking.” (Office Action, p. 3). In support of this conclusion, the Examiner cites U.S. Patent 6,070,243 (“See”) as disclosing “terminating a session

with a user after a predetermined number of failed login attempts,” as well as citing Applied Cryptography (“Schneier”) as disclosing that “session keys are erased when a session is ended.” (Office Action, p. 3). Applicants respectfully submit that the overall disclosures of the applied references do not support the Examiner’s obviousness conclusion, as explained in detail below.

With respect to the teachings of Abraham, Abraham not only fails to “disclose that an initial stored prompt from a successful prompt/reply cycle is used to encrypt the authorization information,” as admitted by the Examiner, but Abraham fundamentally differs from the Applicants’ claimed invention in that the inquiry signal (encrypted challenge message) is not stored, but only an initial terminal key is stored in the remote control (cryptographic terminal). (See, e.g., claim 1 of Abraham: “storing said initial terminal key in said cryptographic terminal...”). An encoded reply signal is then generated and transmitted back to the controller, using the stored initial terminal key in connection with the inquiry signal received by the terminal. (See, e.g., claim 1 of Abraham: “encrypting a response message at said cryptographic terminal using said terminal key and transmitting said encrypted response message to said controller”). Accordingly, it is clear that the inquiry signal of Abraham is not stored in the terminal.

To the extent the Examiner summarily concludes that “the encrypted challenge message must be stored to be decrypted,” (4/14/06 Advisory Action), this is nothing more than a self-serving statement that is completely unsupported by any evidence in the examination proceeding. To the extent that the Examiner is contending that feature is inherently disclosed by Abraham, the Examiner must provide a “basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics necessarily flow from the teachings of the applied art,” which the Examiner has clearly failed to do.

In addition to the above, Abraham does not teach or suggest a **system for access authorization**, as recited in the present claims; instead, Abraham only discusses the initialization procedure of a cryptographic terminal in a cryptographic system (column 5, lines 10 through 12 and 25 through 26: The initial key, or a key

derived from it, is used only for **initialization purposes and not for system operation**). Therefore, one skilled in the art would not be motivated by the teachings of Abraham, in combination with the teachings of Kousa, to arrive at the presently claimed subject matter.

Even if one assumed for the sake of argument that there were some motivation to combine the teachings of Abraham and Kousa, with which assumption Applicants do not agree, the asserted combination would not render the present claims obvious. While Kousa discusses, e.g., in column 2, lines 3-10, that two consecutive inquiry/response dialogues (hand shakes) are carried out for system identification in a secure transmission system, nothing in Kousa suggests that, in this case, the inquiry signal is stored in the node. To the extent the Examiner cites Merritt (U.S. Patent 5,475,756) for the first time in the Advisory Action in support of the proposition that “key exchange to begin a session is well known in the art,” (4/14/06 Advisory Action), Applicants submit that the Examiner’s contentions do not support the obviousness conclusion because even if “key exchange to begin a session is well known in the art,” as allegedly disclosed by Merritt, it does not logically follow that one of ordinary skill in the art would be motivated to store a prompt from “an initial prompt/reply cycle that is successfully carried out,” and subsequently use the stored prompt. Nothing in Merritt, including col. 6, l. 54-63 cited by the Examiner in the Advisory Action, teaches or suggests exchange of keys or storing a prompt from “an initial prompt/reply cycle that is successfully carried out,” and subsequently use the stored prompt. In fact, Merritt merely indicates that when “a new terminal, such as the ATM 10, is brought on-line . . . , the bank 1 assigns . . . an encryption key K,” and the encryption key is stored “both in the ATM’s storage means 20 and in the bank’s host 2.” (Col. 1, l. 50-63). In another section of Merritt, it is indicated that “the host has an encryption key K1, and the ATM has an encryption key K2,” and “the two keys, K1 and K2, are identical . . . to the key K.” (Col. 5, l. 13-17). Accordingly, it is clear that the encryption keys are simply assigned to the authorized device (e.g., ATM) by the network operator (e.g., the bank), and there is no suggestion of storing a prompt from “an initial prompt/reply cycle that is successfully carried out,” and subsequently using the stored prompt.

Accordingly, the combination of Abraham, Kousa, See and Schneier fails to teach or suggest “in an access authorization process, subsequent to the previous, initial prompt/reply cycle that is successfully carried out, the at least one remote control transmits to the base device a code word containing a reply, the reply being formed at least partially as a function of the prompt signal stored in the at least one remote control,” as recited in claim 10.

With respect to the Examiner’s assertions that See teaches “terminating a session with a user after a predetermined number of failed login attempts,” and that Schneier teaches “session keys are erased when a session is ended,” and therefore the combination of the teachings of See and Schneier would suggest the claimed feature that “the **prompt signal** stored in the base device is **erased when a number of failed agreements** of the reply and the required reply **exceeds a specifiable limiting value**,” Applicants respectfully note that the overall teachings of the applied references do not support the Examiner’s conclusion. Initially, there is no apparent motivation in the overall teachings of See and Schneier to modify the teachings of one with the other, particularly since each reference is completely silent on the subject taught by the other reference, i.e., See does not suggest anything relating to erasing of session keys, and Schneier doesn’t suggest anything relating to the relevance of predetermined number of failed login attempts. More fundamentally, neither See nor Schneier suggests any **deletion as a function of a number of incorrect attempts**. Accordingly, there is no apparent motivation that one of ordinary skill in the art would selectively combine specific teachings of See and Schneier as asserted by the Examiner in an attempt to arrive at the claimed feature that “the **prompt signal** stored in the base device is **erased when a number of failed agreements** of the reply and the required reply **exceeds a specifiable limiting value**.”

Applicants note that the Examiner’s obviousness rationale is a classic example of an “obvious-to-try” rationale, which is insufficient to support a *prima facie* obviousness: the mere fact that references *can* be combined or modified does not render the resultant combination obvious unless the prior art also suggests the

desirability of the combination. In re Mills, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990). With respect to the subjective “obvious to try” standard, the cases of In re Fine, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988), and In re Jones, 21 U.S.P.Q.2d 1941 (Fed. Cir. 1992), clearly indicate that the Examiner’s generalized assertions, i.e., it would have been obvious to combine or modify the references relied upon, do not properly support an obviousness rejection. In particular, the Court in the case of In re Fine stated: “Instead, the Examiner relies on hindsight in reaching his obviousness determination One cannot use hindsight reconstruction to **pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.**” In re Fine, 5 U.S.P.Q.2d at 1600 (citations omitted; emphasis added). Likewise, the Court in the case of In re Jones stated that:

Before the PTO may combine the disclosures of two or more prior art references in order to establish prima facie obviousness, there must be some suggestion for doing so, found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. . . .

Conspicuously missing from this record is any evidence, other than the PTO’s speculation (if it be called evidence) that one of ordinary skill . . . would have been motivated to make the modifications . . . necessary to arrive at the claimed [invention]. In re Jones, 21 U.S.P.Q.2d at 1943 & 1944 (citations omitted).

Applicants note that the Examiner has failed to provide evidence of actual suggestion in the applied prior art to make the asserted modification; instead, the Examiner has offered only conclusory hindsight, reconstruction and speculation, which the Court of Appeals for the Federal Circuit has indicated does not constitute evidence that will support a proper obviousness finding.

Accordingly, for at least the foregoing reasons, claim 10 and its dependent claims 11 and 14-18 are not rendered obvious by the combination of Abraham, Kousa, See, Schneier and Merritt.

VIII. CONCLUSION

For the foregoing reasons, it is respectfully submitted that the final rejection of claims 10, 11 and 14-18 should be reversed.

Respectfully submitted,

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 (R. No. 36,197)

Dated: 9/11, 2006

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APPENDIX TO APPELLANTS' APPEAL BRIEF
UNDER 37 C.F.R. § 41.37

CLAIMS APPENDIX

The claims involved in this appeal, claims 10, 11, and 14-18 in their current form after entry of all amendments presented during the course of prosecution, are set forth below:

10. A system for controlling an access authorization, comprising:

a base device including a computer, wherein the base device initially transmits a prompt signal within a framework of an initial prompt/reply cycle that is successfully carried out, and wherein the prompt signal is stored in the base device; and

at least one remote control storing the initially transmitted prompt signal from the initial prompt/reply cycle;

wherein, in an access authorization process, subsequent to the previous, initial prompt/reply cycle that is successfully carried out, the at least one remote control transmits to the base device a code word containing a reply, the reply being formed at least partially as a function of the prompt signal stored in the at least one remote control, wherein the base device receives the code word containing the reply and compares the reply contained in the code word with a required reply, wherein an access is authorized if the reply contained in the code word agrees with the required reply, and wherein the prompt signal stored in the base device is erased when a number of failed agreements of the reply and the required reply exceeds a specifiable limiting value.

11. The system according to claim 10, wherein:

the required reply is formed as a function of a unique identifier for the at least one remote control, the unique identifier being stored in the at least one remote control and contained in the code word.

14. The system according to claim 10, wherein:

the code word includes a counter code that is compared by the base device to a reference code.

15. The system according to claim 14, wherein:

the counter code is changed in response to an actuation of an operating control element of the at least one remote control.

16. The system according to claim 14, wherein:

a counter code previously transmitted to the base device in the immediately preceding prompt/reply cycle serves as the reference code.

17. The system according to claim 14, wherein:

the counter code is contained in encrypted form in the code word.

18. The system according to claim 10, wherein:

the code word is transmitted wirelessly at a high radio frequency, and the prompt signal is transmitted wirelessly at a low radio frequency.

EVIDENCE APPENDIX

In the present application, there has been no evidence submitted pursuant to 37 C.F.R. §§ 1.130, 1.131 or 1.132, or other evidence entered by the Examiner and relied upon by Appellants in the present appeal.

RELATED PROCEEDINGS APPENDIX

No appeal or interference which will directly affect, or be directly affected by, or have a bearing on, the Board's decision in the pending appeal is known to exist.